Leveraging Data and Artificial Intelligence for Enhanced Social Media Strategy in the Fashion Industry

The proliferation of social media platforms has fundamentally reshaped the landscape for fashion brands, particularly those seeking to connect with Gen Z and Millennial consumers. Platforms such as Instagram, TikTok, and Facebook offer unprecedented opportunities for direct engagement, brand building, and the dissemination of trends. However, achieving significant reach, virality, and sustained engagement within these dynamic digital environments presents both considerable challenges and substantial rewards. The ability to navigate this complex terrain effectively hinges on a brand's capacity to harness data-driven insights and leverage the power of artificial intelligence. This report aims to provide WEAR RISN, a fashion brand targeting Gen Z and Millennials, with actionable information regarding open-source datasets and AI tools that can be strategically employed to analyze and generate viral content, ultimately enhancing their social media strategy and market presence.

Unlocking Insights: Open-Source Datasets for Social Media Analysis in Fashion

The foundation of a successful data-driven social media strategy lies in the availability and effective utilization of relevant datasets. For fashion brands, understanding the nuances of content performance, engagement patterns, and user behavior across different platforms is paramount. Open-source datasets offer a valuable starting point for gaining these critical insights.

Deep Dive into Instagram Datasets for Performance and Engagement

Instagram has emerged as a pivotal platform for fashion communication, serving as a highly visual medium that aligns naturally with the aesthetic nature of the industry.[1] Its emphasis on imagery and short-form video makes it particularly effective for visual storytelling, a crucial element in connecting with the target demographic of Gen Z and Millennials. Several open-source datasets provide valuable resources for analyzing Instagram activity within the fashion domain.

The "Instagram Influencer Dataset" compiled by Seungbae Kim stands out as a large-scale resource, encompassing data from 33,935 Instagram influencers and over 10.1 million of their posts.[5] This dataset includes a wealth of metadata associated with each post, such as captions, hashtags, the number of likes and comments, timestamps, and information regarding sponsored content. The sheer volume of data allows for statistically significant analyses of various factors that contribute to

engagement, including content type, the category of the influencer (with fashion being a specific classification), and the strategic use of particular hashtags or caption styles. Furthermore, the inclusion of sponsorship details offers a valuable opportunity to examine the effectiveness of paid partnerships and identify patterns in successful influencer collaborations.

Another significant dataset is the "Fashion Conversation Data on Instagram," which focuses specifically on the visual content shared by fashion brands and individuals.[7] This dataset contains 24,752 labeled images from 48 different brands, each accompanied by visual tags and engagement metrics. The detailed tagging of visual features, such as whether an image is a selfie, a body snap, or a product-only shot, enables a granular analysis of how specific image characteristics correlate with user engagement, measured by likes and comments. The dataset's categorization of brands into types like mega couture, small couture, designer, and high street allows for comparative studies to identify potential differences in audience engagement strategies across various segments of the fashion industry. This resource is particularly valuable for understanding what kinds of fashion-related visuals resonate most with Instagram users.

Kaggle also hosts the "Instagram Posts Dataset," a collection of 1968 Instagram photo posts that includes metadata in JSON format and the corresponding post captions in TXT files.[12] While smaller in scale compared to the influencer dataset, its strength lies in the direct linkage between images, their associated metadata, and the accompanying text captions. This structure makes it a useful resource for training machine learning models designed for tasks such as generating relevant captions for fashion images or predicting the level of engagement a post might receive based on its visual and textual content. The availability of both the raw content (images and text) and the structured metadata enhances its versatility for various analytical and predictive modeling applications related to Instagram content.

Beyond these primary datasets, Kaggle offers a range of other Instagram-focused datasets that can provide additional layers of insight. These include datasets specifically designed for reach analysis [13], which offer metrics related to how far a post spreads and the sources of its impressions. There are also datasets focused on general engagement metrics [21], providing a broader view of user interactions with Instagram content. Examining these datasets can help WEAR RISN understand the specific factors that contribute to both the initial reach of their content and the subsequent engagement it generates among users.

Exploring TikTok Data Resources for Fashion and Trend Analysis

In comparison to Instagram and Facebook, the availability of large-scale, open-source datasets specifically focused on TikTok is relatively limited. This may be due to the platform's more recent rise to prominence and the proprietary nature of its data. However, some datasets include TikTok data as part of a broader analysis of social media trends.

The "Viral Social Media Trends & Engagement Analysis" dataset available on Kaggle [30] offers a cross-platform perspective on content virality, encompassing data from TikTok alongside Instagram, Twitter, and YouTube. This dataset includes key engagement metrics such as views, likes, shares, and comments, as well as information on trending hashtags and content types across these platforms. By examining viral trends across multiple platforms, WEAR RISN can identify common characteristics and platform-specific nuances that contribute to content achieving widespread popularity. Understanding what makes content go viral on TikTok, and how it compares to the dynamics on Instagram and Facebook, can inform the development of platform-specific content strategies.

Given the current limitations in dedicated open-source TikTok datasets for fashion, it is important for WEAR RISN to consider focusing on targeted data collection efforts. This could involve actively monitoring and analyzing content associated with specific fashion-related hashtags or trends relevant to their brand and target audience on TikTok.

Leveraging Facebook Datasets for Understanding User Reactions and Content Consumption

Facebook, while potentially less central to WEAR RISN's Gen Z and Millennial target audience compared to Instagram and TikTok, still offers valuable datasets for understanding broader social media engagement patterns within the fashion domain. Several open-source datasets focused on Facebook engagement metrics and user reactions are available.[21] These datasets often track user reactions to posts, including comments, shares, and likes. Analyzing these resources can provide insights into the types of fashion content that generally resonate with online audiences, even if the demographic on Facebook differs from WEAR RISN's primary focus. Understanding these broader engagement patterns can still inform their overall social media strategy and content creation approach.

Cross-Platform Datasets: A Holistic View of Social Media Engagement in Fashion

Datasets that span multiple social media platforms offer a valuable opportunity to gain a holistic understanding of engagement trends in the fashion industry. Resources like

the "Viral Social Media Trends & Engagement Analysis" dataset [30] and the "Social Media Post Engagement Dataset" [21] are particularly useful in this regard. By analyzing data across Instagram, TikTok, and Facebook concurrently, WEAR RISN can identify overarching trends in social media engagement for fashion content. This cross-platform perspective can help in developing a unified social media strategy that leverages the strengths of each platform while maintaining a consistent brand message. Identifying common engagement drivers across different platforms can inform a core content strategy, while platform-specific data can guide the tailoring of content to suit the unique characteristics of each channel.

Furthermore, the "Social Media Usage Dataset" [41] provides insights into how much time users spend on different social media platforms and their levels of engagement. Knowing which platforms are most popular with Gen Z and Millennials will allow WEAR RISN to prioritize their efforts and resources on the most impactful channels for reaching their target audience. Understanding these general usage patterns is crucial for focusing marketing efforts effectively and ensuring that the brand's presence aligns with where their audience spends the majority of their online time.

Decoding Engagement: Analyzing Patterns and User Behavior on Key Platforms

To effectively leverage social media, WEAR RISN needs to delve into the intricacies of user engagement on their target platforms. Understanding what drives interaction and resonates with their audience is crucial for crafting content that not only captures attention but also fosters a loyal community.

Identifying Key Engagement Metrics and Available Datasets

For WEAR RISN, key engagement metrics to focus on include likes, comments, shares, and saves, particularly on Instagram, as saves often indicate content that users find valuable or inspirational for future reference. On TikTok, views are a particularly important metric, alongside likes, comments, and shares, especially given the platform's video-centric nature. Datasets like the Instagram Influencer Dataset [5], the Fashion Conversation Data on Instagram [7], and the Viral Social Media Trends & Engagement Analysis dataset [30] all provide the raw data necessary to calculate and analyze these engagement rates for fashion-related content on the target platforms. By analyzing the distribution of these metrics, WEAR RISN can gain a clearer understanding of which indicators are most strongly associated with audience interest and the potential for their content to achieve virality.

Understanding User Demographics and Interaction Types in Fashion Communities

While comprehensive demographic information linked to specific fashion interactions in open-source datasets can be scarce, some resources offer glimpses into user characteristics. For example, the SNAP Meta Social Circles dataset mentioned in [36] includes general demographic data such as age, gender, and location, although this may not be specifically tailored to fashion interests. To gain more focused insights, research papers analyzing user interactions with fashion brands on Instagram can be invaluable. A study examining Primark's Instagram engagement [4], for instance, analyzed likes and comments in relation to the brand's content and communication strategies. The findings from such studies can provide a benchmark for WEAR RISN, particularly if the brand being analyzed shares similarities in target audience or market positioning. Understanding the communication tactics and content types that elicit positive engagement from fashion consumers on Instagram can offer valuable guidance for WEAR RISN's own strategy.

Comparative Analysis of Engagement Across Instagram, TikTok, and Facebook

To maximize their impact, WEAR RISN should analyze engagement metrics comparatively across Instagram, TikTok, and Facebook. This platform-specific lens will reveal the unique user behaviors and content preferences that characterize each channel. Datasets like the "Viral Social Media Trends & Engagement Analysis" dataset [30] are designed to facilitate this type of comparison. It is likely that TikTok's engagement is heavily influenced by trending sounds and short, entertaining video formats, while Instagram might see higher engagement on visually striking images and content featuring influencer collaborations. Facebook, on the other hand, might foster more engagement through community-focused posts and discussions. Recognizing these nuances will allow WEAR RISN to tailor their content and strategic approach to each platform, ensuring that their message resonates effectively with the specific user base of each.

Content is King: Finding and Utilizing Fashion and Streetwear Datasets

The content itself is the cornerstone of any successful social media presence, and for a fashion brand like WEAR RISN, having access to relevant datasets of fashion and streetwear content can provide a significant advantage.

Exploring Multi-Modal Datasets: Images, Videos, Captions, and Hashtags

Datasets that encompass a variety of content formats, including images, videos, captions, and hashtags, are particularly valuable for understanding the complex

interplay of elements that contribute to engagement. The Instagram Influencer Dataset [5] and the Fashion Conversation Data on Instagram [7] are prime examples of such multi-modal resources for the Instagram platform. Analyzing how captions and hashtags correlate with the visual content (image or video type, specific features) and the subsequent engagement can reveal crucial best practices for WEAR RISN's content creation strategy.

The RichWear Dataset [46] stands out as a dataset specifically focused on street fashion, containing over 320,000 images collected from wear.jp, a Japanese street style platform. Each image in the RichWear dataset is accompanied by rich metadata, including the date of upload, the gender of the person in the image, user-provided clothing brands, hashtags, colors, and categories. This dataset aligns particularly well with WEAR RISN's potential aesthetic, offering a wealth of information for analyzing current street fashion trends and identifying effective hashtag strategies within this specific domain. The detailed labels for brands, colors, and categories provide a valuable resource for understanding what styles are currently popular and potentially predicting future trends relevant to WEAR RISN's target market.

Focus on Niche Aesthetics: Men's Fashion, Futuristic Styles, Surreal Aesthetics, and Gen Z/Millennial Trends

While dedicated open-source datasets focusing precisely on men's fashion, futuristic styles, surreal aesthetics, or content specifically targeting Gen Z and Millennials might be limited, existing datasets like the RichWear Dataset [46] and the Fashion Conversation Data on Instagram [7] can be effectively filtered using relevant keywords and hashtags to narrow the focus to these specific aesthetics. Additionally, research exploring futuristic fashion trends and the increasing role of AI in their creation [47], while not datasets themselves, highlight the growing consumer interest in these styles, particularly among younger demographics. WEAR RISN should consider these trends when developing their content strategy, as the increasing prevalence of AI-generated surreal fashion imagery suggests a growing appetite for these unconventional aesthetics.

Metadata and User Reactions Associated with Fashion Content

As previously mentioned, datasets like the Instagram Influencer Dataset [5] and the Fashion Conversation Data on Instagram [7] provide valuable metadata, including hashtags, captions, and timestamps, alongside user reactions such as likes and comments. Analyzing the relationships between this metadata and the observed user reactions can yield significant insights into what makes fashion content truly engaging. By identifying patterns in high-performing posts, such as the use of

specific hashtag combinations, the length and style of captions, or the timing of posts, WEAR RISN can refine their content creation strategy to maximize its impact and resonance with their target audience.

The Reaction Factor: Understanding User Responses to Fashion Content

Understanding how users react to social media content is crucial for tailoring a brand's strategy for maximum effectiveness. For WEAR RISN, analyzing comments, shares, and saves on platforms like Instagram, TikTok, and Facebook can provide valuable feedback and reveal what types of content resonate most strongly.

Datasets Specifically Tracking Comments, Shares, and Saves

Engagement metrics, by their very nature, include data on comments, shares, and saves. The Instagram Influencer Dataset [5] serves as a key open-source resource for accessing these specific metrics on the Instagram platform. By examining this dataset, WEAR RISN can directly analyze how users respond to fashion content posted by influencers through these different forms of engagement. For instance, a high number of saves on a particular post might indicate that users found the content especially valuable or inspirational, suggesting a different type of impact compared to a post that primarily generates likes for its aesthetic appeal. Understanding these nuances in user reactions can help WEAR RISN refine their content strategy to align with what their audience values most.

Linking Reactions to Content Types and Metadata in the Fashion Domain

To gain a deeper understanding, it is beneficial to link these user reactions to specific content types and metadata. The Fashion Conversation Data on Instagram [7] is a valuable resource for this type of analysis. By examining this dataset, WEAR RISN can explore which visual content categories, such as product-only images versus body snap shots, tend to generate different types and levels of user reactions. Research has indicated, for example, that "body snap" images, which show people wearing fashion items in a natural setting, often receive a higher number of likes and comments compared to product-only images.[10] This type of finding can inform WEAR RISN's content mix, suggesting a balance between showcasing their products directly and featuring them in lifestyle-oriented content that resonates more strongly with users.

Demographic Insights into User Reactions within Fashion Niches

Obtaining detailed demographic information specifically linked to user reactions

within niche fashion communities from open-source datasets can be challenging. While some datasets may include general demographic data, it is often not granular enough to provide specific insights into how different segments of WEAR RISN's target audience (Gen Z and Millennials interested in futuristic and surreal techwear) react to particular types of content. To gain this level of understanding, WEAR RISN might need to consider conducting their own targeted surveys of their existing audience or analyzing the demographic data available through their own social media analytics platforms, if applicable. This direct engagement with their audience can provide the nuanced insights necessary to tailor their content and engagement strategies effectively.

The AI Advantage: Tools and Platforms for Analyzing Viral Fashion Content

Artificial intelligence offers powerful capabilities for analyzing vast amounts of social media data, identifying emerging trends, and even predicting which content has the potential to go viral. For WEAR RISN, leveraging these AI tools can provide a significant competitive advantage in the dynamic world of online fashion.

Comprehensive Overview of AI Tools for Virality Prediction and Trend Identification

The fashion industry is increasingly turning to artificial intelligence to gain a deeper understanding of consumer preferences and to anticipate future trends.[49] AI's ability to process and analyze massive datasets from various sources, including social media, e-commerce platforms, and even runway shows, allows it to identify patterns and signals that humans might overlook. This capability can provide WEAR RISN with early indications of upcoming fashion trends that are likely to resonate with their target audience. By staying ahead of these trends, WEAR RISN can ensure that their product offerings and social media content remain relevant and appealing to Gen Z and Millennial consumers.

Feature Analysis and Functionalities of Relevant AI Platforms

Several AI-powered platforms are specifically designed to assist fashion brands with trend forecasting and design. Heuritech [60], for example, utilizes advanced AI and machine learning algorithms to analyze large-scale consumer data from social media, enabling them to accurately predict emerging trends in the fashion industry. Similarly, yoona.ai [62] offers an intuitive platform that leverages AI to transform performance data and trend analysis into best-selling collection designs. While these platforms are commercial offerings, understanding their functionalities, such as analyzing consumer

data to predict trends and generating design ideas, can provide valuable insights for WEAR RISN and potentially inform their decision to adopt similar tools if their budget allows.

Open-Source Options and API Availability for Integration

For brands with in-house technical expertise, open-source machine learning libraries in Python, such as TensorFlow, Keras, and scikit-learn [63], offer the foundational tools for building custom AI models. These libraries can be used to develop tailored solutions for virality prediction or trend analysis based on WEAR RISN's specific data and objectives. While requiring a higher level of technical skill and resources, this approach can potentially be more cost-effective in the long run and allow for greater customization. Additionally, some of the commercial AI platforms mentioned earlier may offer APIs that could be used to integrate their functionalities into WEAR RISN's existing workflows and systems.

Predicting Success: AI for Virality and Optimal Post Timing in Fashion

Understanding what makes social media content go viral and when the best time to post is can significantly impact a fashion brand's reach and engagement. Artificial intelligence is playing an increasingly important role in helping brands decipher these complex dynamics.

Review of Research Papers and Methodologies for Virality Prediction

Academic research has explored various methodologies for predicting engagement and potential virality on Instagram using machine learning techniques.[68] These studies often analyze a range of features, including image characteristics, the sentiment expressed in captions, the use of specific hashtags, and even the social network data of the users posting the content. By examining the findings and methodologies of this research, WEAR RISN can gain valuable insights into the factors that contribute to high engagement and the potential for content to spread widely on Instagram. For example, research analyzing the impact of visual elements like brand logos and the presence of faces on engagement in fashion posts [10] can offer specific guidance for WEAR RISN's visual content strategy.

Insights into Optimal Posting Schedules for Maximizing Reach and Engagement

Research has also investigated the optimal times to post content on Instagram to maximize its reach and engagement.[3] Understanding when WEAR RISN's target audience is most active on the platform is crucial for ensuring that their content is

seen by the largest possible number of users and has the greatest opportunity to generate interaction. Studies identifying peak engagement times for fashion-related content can help WEAR RISN schedule their posts strategically, increasing the likelihood that their Gen Z and Millennial audience will see and interact with their content.

Specific Focus on Fashion and Visually-Driven Content

Given WEAR RISN's focus on fashion and visually-driven content, research specifically examining virality prediction within the fashion industry on Instagram is particularly relevant.[69] These studies often delve into the nuances of what makes fashion-related content stand out and gain traction on the platform. Factors such as the specific types of clothing featured, the overall aesthetic of the post, and the presence or absence of certain visual elements can all influence a post's virality. By understanding these fashion-specific dynamics, WEAR RISN can tailor their content creation strategy to align with the factors that are most likely to drive success within their industry.

Content Creation Reimagined: AI Tools for Generating Fashion-Forward Social Media

Artificial intelligence is not only valuable for analyzing social media data but also for assisting in the creation of compelling content. For WEAR RISN, AI tools can be leveraged to generate innovative visuals, craft engaging captions, discover relevant hashtags, and even produce short-form videos, all while aligning with their unique brand aesthetic.

Exploring AI Tools for Image, Caption, Hashtag, and Short-Form Video Generation

A growing number of AI-powered tools are available to help fashion brands create engaging social media content. For generating visually striking images, platforms like Midjourney [48] and Runway ML [48] have gained popularity for their ability to produce highly creative and often surreal imagery based on text prompts. Riffusion [48] can even generate music to accompany video content. Tools such as Cala [81], Designovel [81], and Fashable [81] are specifically designed for fashion design, offering features that could inspire new product ideas and visual concepts for social media. Resleeve [47], The New Black [83], Botika [84], and Veesual [86] are examples of platforms that utilize AI to generate fashion models and product visualizations, which can be invaluable for showcasing WEAR RISN's designs in a dynamic and engaging way.

AI can also assist in the creation of compelling captions and the identification of relevant hashtags. Research papers have explored various approaches to automated

hashtag and caption generation [87], and tools like Inflact's Instagram Hashtag Generator [92] are readily available to help discover trending and relevant hashtags for WEAR RISN's posts. These tools often analyze the content of an image or video to suggest appropriate hashtags, saving time and potentially improving the reach of the content.

Relevance and Adaptability of AI Tools to WEAR RISN's Unique Aesthetic (Futuristic, Surreal, Techwear)

Given WEAR RISN's focus on a futuristic and surreal aesthetic, certain AI tools may be particularly well-suited to their needs. Platforms like Midjourney [48] have demonstrated a strong capability in generating imaginative and unconventional visuals that often lean towards the surreal. Articles and online galleries showcasing surreal AI art [53] highlight the potential of AI to create imagery that aligns with this specific aesthetic. WEAR RISN can experiment with different prompts and settings within these tools to generate content that captures the desired futuristic and surreal look, potentially creating visuals that stand out and resonate with their target audience.

Open-Source Implementations and API Accessibility for Content Generation

While many of the advanced AI content generation tools are proprietary and require a subscription, brands with technical resources can explore open-source options. Libraries like TensorFlow and PyTorch [63] provide the foundational frameworks for training custom generative models. This would require a significant investment in time and expertise but could offer a highly tailored solution. Additionally, some of the commercial AI content generation platforms may offer APIs that allow for integration with WEAR RISN's existing systems and workflows, providing a more streamlined approach to incorporating AI-generated content into their social media strategy.

Streamlining Operations: AI for Social Media Automation and Scheduling in Fashion

Managing a successful social media presence requires consistent effort and efficient workflows. AI-powered social media management tools can significantly streamline operations for fashion brands like WEAR RISN by automating tasks, optimizing scheduling, and providing valuable performance insights.

Examination of AI-Powered Social Media Management Tools

A variety of AI-powered social media management tools are available, offering a range of features designed to enhance efficiency and effectiveness. Popular options include Buffer [96], Hootsuite [97], Later [98], Sprout Social [97], ContentStudio [97], Social Status [101],

Pallyy [101], Iconosquare [101], and Sendible.[101] These tools often leverage AI to suggest optimal posting times based on audience activity patterns, automate the distribution of content across multiple platforms, provide recommendations for relevant hashtags, and offer comprehensive analytics dashboards to track performance. By utilizing these AI-driven features, WEAR RISN can save valuable time and effort, allowing their marketing team to focus on more strategic and creative aspects of their social media strategy.

Features for Automation, Scheduling Optimization, and Performance Analysis

The AI capabilities within these social media management tools vary but often include features such as suggesting the best times to post based on when the target audience is most active online, automating the scheduling of content across different platforms to maintain a consistent presence, recommending relevant hashtags to increase the visibility of posts, and providing analytics dashboards that highlight key performance indicators like reach, engagement rate, and follower growth. Some tools even offer AI-powered content creation suggestions or the ability to analyze competitor performance. These features can help WEAR RISN optimize their content strategy, identify what types of posts resonate best with their audience, and ensure that their content is being seen by the right people at the right time.

Evaluation of Pricing Models and Suitability for Growing Brands

When considering these AI-powered social media management tools, WEAR RISN should carefully evaluate their pricing models to find options that align with their current budget and anticipated growth trajectory. Many of these platforms offer different pricing tiers based on the number of social media profiles managed, the features included, and the size of the team using the tool. It is worth noting that some platforms offer free trials or plans that may be suitable for smaller or growing brands, allowing WEAR RISN to test out the functionalities and determine the value they provide before committing to a paid subscription.

Conclusion and Strategic Recommendations: Empowering WEAR RISN with Data-Driven AI Solutions

The effective use of social media is paramount for fashion brands targeting Gen Z and Millennials, and this report has explored the wealth of open-source datasets and the transformative potential of artificial intelligence in achieving social media success. By strategically leveraging these resources, WEAR RISN can gain a deeper understanding of their audience, optimize their content strategy, and streamline their social media

operations.

Based on the research, the following actionable recommendations are provided for WEAR RISN:

- **Leverage Instagram Datasets for In-Depth Analysis:** Utilize the "Instagram Influencer Dataset" [5] and the "Fashion Conversation Data on Instagram" [7] to conduct a thorough analysis of what types of fashion content perform best and drive the highest levels of engagement on Instagram.
- **Explore Streetwear Trends with the RichWear Dataset:** Investigate the RichWear Dataset [46] to gain valuable insights into current streetwear trends, popular brands within this niche, and effective content and hashtag strategies that resonate with street fashion enthusiasts.
- **Analyze Cross-Platform Performance:** Utilize the "Viral Social Media Trends & Engagement Analysis" dataset [30] to compare engagement metrics across Instagram, TikTok, and Facebook, identifying platform-specific user behaviors and content preferences.
- **Experiment with AI-Powered Content Generation:** Explore the capabilities of AI content generation tools like Midjourney [48] and Runway ML [48] to create visually compelling and unique content that aligns with WEAR RISN's futuristic and surreal aesthetic, potentially setting them apart from competitors.
- **Consider AI-Driven Social Media Management:** Evaluate AI-powered social media management tools such as Buffer [96] or Hootsuite [97] to automate content scheduling, optimize posting times for maximum reach, and gain valuable insights into content performance through their analytics features.
- **Explore Open-Source AI for Custom Solutions:** If WEAR RISN has the necessary technical expertise, consider exploring the use of open-source machine learning libraries like TensorFlow and PyTorch [63] to build custom AI models for virality prediction or trend analysis that are specifically tailored to their brand and target audience.

By embracing a data-driven approach and strategically integrating artificial intelligence into their social media strategy, WEAR RISN can significantly enhance their ability to create engaging content, optimize their posting schedules, and ultimately achieve greater reach and virality among their target audience of Gen Z and Millennial consumers in the competitive fashion industry. Continuous experimentation, monitoring of performance metrics, and adaptation based on data-driven insights will be key to long-term success.

Table 1: Overview of Key Open-Source Datasets for Fashion Social Media

Analysis

Dataset Name	Platform(s) Covered	Key Data Included	Size	Hosting Platform	Relevance to WEAR RISN
Instagram Influencer Dataset	Instagram	Captions, hashtags, likes, comments, timestamps, sponsorship, user categories	~37 GB (metadata), ~189 GB (images)	Google Dataset Search, GitHub	Analyzing influencer marketing strategies and engaging fashion content
Fashion Conversation Data on Instagram	Instagram	Visual tags (selfie, product-only, etc.), engagement metrics (likes, comments), brand categories	24,752 labeled images	ResearchGate, ICWSM	Understanding visual content that drives engagement for fashion brands
Instagram Posts Dataset	Instagram	Post metadata (JSON), captions (TXT), images	1968 posts, 5426 images	Kaggle	Training models for caption generation or engagement prediction
Viral Social Media Trends & Engagement Analysis	TikTok, Instagram, Facebook, YouTube	Views, likes, shares, comments, hashtags, content types, engagement levels	5000 records	Kaggle	Comparative analysis of viral content and engagement across platforms
RichWear	Wear.jp	Images,	321,698	GitHub	Analyzing

Dataset	(street fashion)	date, gender, brands, hashtags, colors, categories (user-provided and verified)	images (~30 GB)		streetwear trends and metadata
Social Media Usage Dataset	Facebook, Instagram, Twitter, Snapchat, TikTok, LinkedIn, Pinterest	Daily time spent, posts per day, likes per day, follows per day	1000 users	Kaggle	Understanding platform usage patterns of target audience

Table 2: Comparison of AI-Powered Social Media Management Tools

Tool Name	**Key AI-Powered Features**	**Platforms Supported**	**Pricing Model**	**Suitability for Growing Brands**
Buffer	AI Writing Assistant, optimal posting times, content recycling	Instagram, TikTok, Facebook, Twitter, LinkedIn, Pinterest	Free plan available, paid plans from $5/month/channel	Suitable, offers a free plan and scalable paid options
Hootsuite	OwlyWriter AI (caption & hashtag generation), best time to publish recommendations, social inbox	Instagram, TikTok, Facebook, Twitter, LinkedIn, YouTube, Pinterest	Paid plans from $149/user/month	More suitable for established brands or agencies
Later	AI Caption Writer, hashtag suggestions, visual planner	Instagram, TikTok, Facebook, Twitter, Pinterest,	Free plan available, paid plans from $25/month	Suitable, offers a free plan and creator-focused features

		LinkedIn		
Sprout Social	Optimal send times, content suggestions, competitive analysis	Instagram, TikTok, Facebook, Twitter, LinkedIn, Pinterest, YouTube	Paid plans from $249/month	More suitable for larger teams and established brands
ContentStudio	AI content automation, topic discovery, performance analytics	Instagram, TikTok, Facebook, Twitter, LinkedIn, Pinterest, YouTube	Paid plans from $19/month	Suitable, offers a range of features for content management

Table 3: Examples of AI Tools for Fashion Content Generation

Tool Name	**Type of Content Generated**	**Key Features Relevant to WEAR RISN's Aesthetic**	**Open-Source/API Availability**
Midjourney	Images	Highly capable of generating surreal and futuristic imagery	Proprietary
Runway ML	Images, Videos	Video generation from images and text, can create dynamic surreal scenes	Proprietary
Resleeve	Images, Virtual Outfits	AI-driven fashion design, outfit creation, and trend prediction	Proprietary
The New Black	Images, Virtual Outfits	AI fashion design generation for apparel, footwear, accessories	Proprietary

Botika	Images (on-model)	AI-generated models for showcasing clothing, realistic image generation	Proprietary
Veesual	Images (on-model), Look Inspiration	AI-powered visual experiences for fashion e-commerce, showcasing diverse models	Proprietary
Inflact Instagram Hashtag Generator	Hashtags	AI-based hashtag finder, analyzes images and keywords	Free tool
TensorFlow, Keras, PyTorch	Images, Text (captions, hashtags), Videos (with more effort)	Frameworks for building custom AI models for various content types	Open-source

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